

## Anti-CD4 Antibody Picoband™

Catalog Number: A00344-2

### About Cd4

This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes, but also in B cells, macrophages, and granulocytes. It is also expressed in specific regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been identified in this gene.

### Overview

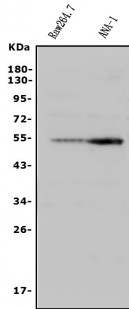
Product Name	Anti-CD4 Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD4 Antibody Picoband™ catalog # A00344-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P05540

### Technical Details

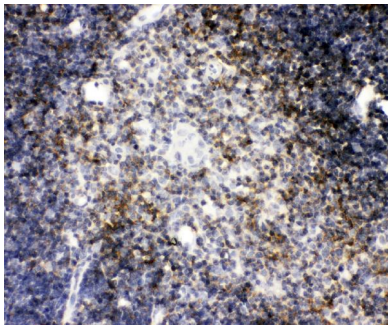
Immunogen	E.coli-derived rat CD4 recombinant protein (Position: K28-I457).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Mouse</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse</p> <p>Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells, Mouse</p> <p>Direct ELISA, 0.1-0.5ug/ml, Rat</p>

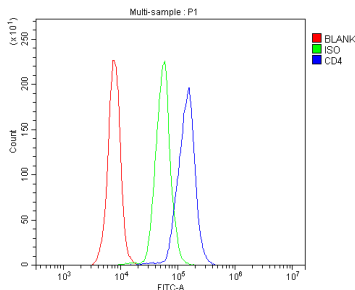
## Anti-CD4 Antibody Picoband™ (A00344-2) Images



**Figure 1. Western blot analysis of CD4 using anti-CD4 antibody (A00344-2).**  
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.  
Lane 1: mouse RAW264.7 whole cell lysates,  
Lane 2: mouse ANA-1 whole cell lysates.  
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD4 antigen affinity purified polyclonal antibody (Catalog # A00344-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CD4 at approximately 52KD. The expected band size for CD4 is at 52KD.



**Figure 2. IHC analysis of CD4 using anti-CD4 antibody (A00344-2).**  
CD4 was detected in paraffin-embedded section of mouse thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD4 Antibody (A00344-2) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



**Figure 3. Flow Cytometry analysis of mouse PBMC cells using anti-CD4 antibody (A00344-2).**  
Overlay histogram showing mouse PBMC cells stained with A00344-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD4 Antibody (A00344-2, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

## 4 Publications Citing This Product

1. PubMed ID: 10.3389/fimmu.2021.616074, Berberine Prolongs Mouse Heart Allograft Survival by Activating T Cell Apoptosis via the Mitochondrial Pathway

2. PubMed ID: 10.1177/09636897211054503, Leflunomide Inhibits rat-to-Mouse Cardiac Xenograft Rejection by Suppressing Adaptive Immune Cell Response and NF-kappaB Signaling Activation:

3. PubMed ID: 10.3109/00016489.2011.552525, High dose combination pertussis toxin induces autoimmune inner ear disease in Sprague-Dawley rats

Visit [bosterbio.com/anti-cd4-picoband-trade-antibody-a00344-2-boster.html](https://bosterbio.com/anti-cd4-picoband-trade-antibody-a00344-2-boster.html) to see all 4 publications.

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